

NATIONAL CENTER FOR ENVIRONMENTAL RESEARCH (NCER) STANDING SUBCOMMITTEE

Conference Call Summary
April 16, 2009
10:00 a.m. – 12:00 noon Eastern Time

Welcome

Dr. Martin Philbert, University of Michigan, NCER Standing Subcommittee Chair

Dr. Martin Philbert, Chair of the NCER Standing Subcommittee, welcomed participants to the Board of Scientific Counselors (BOSC) NCER Standing Subcommittee conference call. The primary purpose of the call was to discuss the draft report being prepared in response to two charge questions from NCER. Dr. Philbert asked the Subcommittee members and other participants to identify themselves for the record (a list of participants is attached to this summary). He then asked if the Subcommittee members had received the draft report sections that were distributed prior to the call. Also on the agenda was a discussion of the draft letter prepared by Dr. Sallie Keller-McNulty for submission to the BOSC Executive Committee. When the Subcommittee members had no questions or additions to the agenda, Dr. Philbert asked Ms. Susan Peterson to provide the Designated Federal Officer's (DFO) remarks.

Administrative Procedures

Ms. Susan Peterson, U.S. Environmental Protection Agency (EPA)/Office of Research and Development (ORD)/Office of Science Policy (OSP), Subcommittee DFO

Ms. Peterson, DFO for the Subcommittee, thanked the Subcommittee members for their participation on the call. She explained that the BOSC Subcommittee is a federal advisory committee that has been asked to respond to a set of charge questions as part of a review of EPA's NCER. As DFO, Ms. Peterson serves as the liaison between the Subcommittee members and the Agency and is responsible for ensuring that the Subcommittee complies with the requirements of the Federal Advisory Committee Act (FACA). Ms. Peterson briefly explained these FACA requirements. All meetings and calls involving substantive issues—whether in person, by phone, or by e-mail—are open to the public. This includes all group communications that include at least one-half of the Subcommittee members. All meetings must be announced in the *Federal Register* at least 15 calendar days in advance of the meeting/call and an electronic public docket was established for this conference call. In addition, all advisory committee documents are made available to the public. Although no advance requests for public comment had been submitted prior to the call, Ms. Peterson said that there will be time for public comments at 10:15 a.m. She asked that each comment be limited to 3 minutes.

Ms. Peterson confirmed that all Subcommittee members had received the agenda and draft report files prior to the call. She explained that this is the Subcommittee's second conference call and a face-to-face meeting of the Subcommittee was held February 2-3, 2009. Ms. Peterson stated that a contractor, Beverly Campbell from The Scientific Consulting Group (SCG), was present to take notes and prepare a summary of the conference call. She asked all participants to identify themselves when speaking so that the discussions could be captured accurately. The contractor will prepare a summary of the call, which will be approved by the Chair and then made available to the public on the BOSC Web Site.

Ms. Peterson asked Subcommittee members to submit homework sheets for the hours they spent working on the report since the February meeting. She explained that members should not track the hours for the conference calls and meetings because she recorded those hours. In response to an inquiry by Dr. Alan Hansen, Ms. Peterson stated that the members should submit their homework sheets to her as soon as possible.

Dr. Philbert thanked Ms. Peterson for explaining the administrative procedures and then called for public comments.

Public Comments

At 10:15 a.m., Dr. Philbert asked if there was anyone present who would like to make a comment. No members of the public offered comments.

Subcommittee Discussion of Draft Report

Dr. Philbert indicated that Dr. Dennis Clifford and Mr. David Rejeski had prepared draft responses to the two charge questions. Charge Question #1 deals with the proposal by NCER senior management that the BOSC Executive Committee help NCER identify emerging areas and use its resources efficiently. Charge Question #2 concerns the strategic decision to focus the limited resources of the Greater Research Opportunities (GRO) Fellowships Program on undergraduate fellowships to capture students earlier in the process and groom the next generation of environmental scientists and engineers.

Response to Charge Question #2

Dr. Philbert asked Dr. Clifford to summarize the draft response to Charge Question #2.

Dr. Clifford stated that the first paragraph of the draft response described the charge question addressed by the Subcommittee. NCER is seeking comments on the directional change that realigned the limited GRO Fellowship resources on the undergraduate student community, as well as advice from the BOSC on the development of metrics to assess the future impact(s) of the realigned Fellowships Program. NCER also is seeking suggestions on how these metrics could be applicable to similar programs (e.g., ORD post-doctoral program, etc.).

The next section of the draft response provided some background on NCER's fellowship programs. As of fall 2008, the GRO Fellowships Program funds only undergraduate students, and contrary to the title, research is not a requirement. For 2009, GRO fellowships provide up to \$19,250 per year of academic support and \$8,000 for internship support for a combined total of \$46,500 over the 2-year life of the fellowship. Typically, 10-15 new GRO fellowships have been awarded annually, but this will increase to 20 new awards in 2009. The FY 2009 budget for the Program, including new awards, continuing awards, and administration is approximately \$2 million. In 2006, the BOSC recommended that NCER consider eliminating the GRO Fellowships Program (both undergraduate and graduate), while at the same time improving marketing of the Science To Achieve Results (STAR) Fellowship Program to minority-serving institutions to encourage applications from underrepresented groups. EPA's response was to eliminate the GRO graduate fellowships but continue the GRO undergraduate fellowships. The current goals of the GRO Fellowships Program (according to the NCER Web Site) are to: "bolster the environmental generation of tomorrow, bridge to diverse communities, and boost excellent research and development that advance the protection of human health and the environment through education." The Program focuses on institutions of higher education that receive limited federal funding, including institutions with substantial minority enrollment.

The third section of the draft describes the Subcommittee's response to the charge question. It basically summarizes the Subcommittee's discussion at the February face-to-face meeting. The Subcommittee

generally agreed with the realignment of the GRO Fellowships Program to target undergraduate students; however, the Subcommittee believes that to influence careers in environmental science and engineering, EPA needs to reach more students as soon as possible. An expanded outreach is necessary, and should include revising, modernizing, and transitioning the mandatory online Web pages for STAR and GRO fellows to Facebook and YouTube pages, which have more appeal to students.

Dr. Clifford mentioned several observations made by the Subcommittee:

- ♦ Students have limited awareness of and little interest in environmental careers.
- ♦ The funds expended on GRO fellowships for undergraduate students appear to be high for the few alumni who actually entered graduate school or were employed in the environmental field.
- ♦ NCER should rethink (1) how these limited funds are to be spent, (2) how to tap into student passion for the environment, and (3) the ways in which success is measured.
- ♦ Some Subcommittee members thought that even limited consortia funding would have merit in that consortia could better target underrepresented students and provide better faculty mentoring.
 NCER could fund two consortia proposals of \$500K each, pairing tier 1/lower tier universities, leaving \$1 million to fund individual GRO fellows.
- ♦ The Subcommittee members agreed that awarding GRO funds to a few consortia would reduce the number of students funded and narrow the geographic impact of the awards. There could be some challenges in attracting qualified environmental faculty support because of the low level of funding.
- ❖ If the Program's goal is to fund the most students possible, the number of students funded may be more important than quality mentoring of fewer students.
- ❖ EPA should consider using measures of success other than the number of alumni securing environmental jobs and entering environmental graduate programs. Increasing environmental awareness among all students will, in the long run, improve the environment. One possible metric of success would be the number of students, particularly underrepresented students, who complete an environment-related degree in any given year.
- ♦ GRO fellows should be involved in Integrated Interdisciplinary Research, research related to sustainability, and research in emerging areas.
- ♦ More EPA outreach to undergraduate and even K-12 students will be necessary to achieve EPA's goal of influencing more students to pursue careers in environmental science and engineering.

The final section of the draft response summarizes the points captured by Dr. Philbert during the discussions at the February meeting. The Program should: (1) reach students as early as possible, (2) increase diversity of GRO fellows, (3) promote environmental sciences as a viable career or component of other careers, and (4) define other metrics of success for the Program. Another concept introduced during the discussion was that every student at a university could be reached by EPA via:

- ♦ A coordinated center that provides for vertical and cross-institutional integration that allows the faculty members to be engaged and raise the educational capabilities across the board.
- ♦ A catalog of EPA-relevant courses for undergraduates.
- ♦ Utilization of available electronic means for dissemination and distance and personalized learning.

- ♦ A series of environmental "grand challenges" for undergraduates (i.e., competition/exhibition).
- ♦ Revision and modernization of the Web portal.
- ♦ Facebook and YouTube mechanisms.

Dr. Philbert thanked Dr. Clifford and asked if the Subcommittee members thought the draft captured the response adequately.

Dr. Hansen said that the response might be more useful to NCER if it provided specific guidance on how to implement the recommendations. He also mentioned that there seemed to be agreement among the Subcommittee members that a consortia approach may have more impact than the current approach. Dr. Clifford responded that the consortia approach is mentioned in the second to last paragraph on page 2. He added that, although a consortia approach might result in less funding per student, it may actually make a bigger impact through more hands-on mentoring of the fellows.

Dr. Keller-McNulty thought the response should clarify that a consortia approach would shift the responsibility of mentoring the fellows from EPA to the faculty of the consortia institutions. She added that she did not consider \$500K a small sum for an undergraduate consortium. Dr. Keller-McNulty thought the draft had adequate detail concerning the recommendations; however, some additional information on mentoring could be included.

Dr. Philbert agreed with Dr. Keller-McNulty about the detail, stating that he did not think the Subcommittee should tell NCER how to implement the recommendations. He asked for input on expanding/clarifying the mentoring component of the Program. Dr. Hansen proposed that NCER highlight the importance of student mentoring in the Request for Applications (RFA) and allow the institutions to be creative in their proposals. Dr. Keller-McNulty suggested that the RFA make it clear that mentoring would be a requirement of the consortium to lessen the burden on EPA of mentoring the fellows. There was some concern about how to word this last thought so Dr. Philbert suggested that the Subcommittee simply recommend that mentorship be a requirement of the consortia.

Mr. Rejeski commented that the National Environmental Education Foundation (NEEF) plays a role in mentoring students. He thought the consortia efforts should go beyond traditional mentoring to approaches that link social networking with mentoring programs. Students are making decisions about careers using mechanisms that are not considered by EPA. It is important for the Agency to tap into the social networking capacity.

Dr. Adam Finkel thought it might be valuable for NCER to initiate a few experiments in parallel to determine which approach might be most effective in achieving the Program's goals. The experiments should continue for 2 to 3 years and results should be measured before the Agency invests more money in any one approach. Dr. Keller-McNulty thought it would be difficult to set up parallel experiments. She stressed that EPA needs to create a presence on Facebook. She mentioned that blogs have become passé and Facebook now is the communication mechanism of choice among students. Perhaps NCER could assemble a focus group of students to obtain input on the best ways to reach them and their fellow students. Dr. Philbert pointed out that as technology changes, the preferred means of communicating among students also will change. NCER should be flexible, keep abreast of technological changes, and employ the latest communication techniques of students.

Mr. Rejeski agreed that NCER could learn a great deal from a student focus group. He emphasized the importance of finding out how the technology is being used socially. Focus groups would be an excellent mechanism for obtaining input from students and the cost would not be prohibitive for NCER. He estimated that a 4-hour focus group of 12-14 students would cost about \$15K. In response to a question

about whether these should be conducted once or periodically, Mr. Rejeski replied that NCER should do them periodically.

Dr. Keller-McNulty suggested using EPA's summer interns for these focus groups and have the interns grapple with this issue. Drs. Finkel and Hansen supported the focus group idea and the use of summer interns. Dr. Keller-McNulty proposed that some of the summer interns could be tasked with implementing the focus group suggestions. Dr. Philbert liked the idea of the interns implementing the suggestions but expressed some concern about its practicality. Would the students use their own cell phones and blackberries to do this?

In response to an earlier comment by Dr. Keller McNulty, Dr. Clifford asked if the current STAR Web pages should be eliminated. Dr. Keller McNulty said that those pages should be streamlined rather than eliminated. They may be appropriate for STAR fellows but they are not effective in attracting other students.

Dr. Philbert stated that NCER also should consider infrastructure needs as well as the focus groups. For example, NCER should include information technology savvy professionals in the focus groups.

Mr. Rejeski mentioned an effort undertaken by the National Aeronautics and Space Administration (NASA) to determine how to attract more Generation Y people to NASA. Young staff members who recently joined NASA were asked what attracted them to the agency and for their ideas on how to attract other young people to apply for NASA positions. Mr. Rejeski said that the results were very interesting.

Dr. Philbert asked if there were any other comments on the draft response. Dr. Clifford agreed to revise the draft based on this discussion. He wanted to confirm that the Subcommittee members agreed with the observations and recommendations in the draft. Dr. Hansen said he was confused by the statement "there is genuine concern if not a crisis in student awareness and interest in environmental careers." He was not sure what that meant. Dr. Clifford explained that the lack of interest in environmental careers is at a point of crisis. There are few students pursuing careers in environmental fields. The numbers are much lower than they were in the 1990s when Superfund was on the front page of many newspapers.

Dr. Finkel thought EPA's efforts could be broadened to increase environmental awareness among students pursuing other fields of study. The Agency should make efforts to incorporate environmental issues into curricula for other careers. Although this might be difficult for EPA to measure, its impact may be far reaching in achieving environmental goals. He suggested that NCER consider offering internships to students who are studying core disciplines that are not typically reached by EPA. Dr. Keller-McNulty thought it would be difficult to determine which disciplines to include. Given the limited resources of the Program, the Subcommittee members had better be certain of the types of careers EPA should target with such an effort.

Dr. Philbert asked if that was the responsibility of academia, professional societies, or EPA and Dr. Keller-McNulty responded all of them. She pointed out that most students are interested in sustainability and energy. They just need to see that those are environmental issues.

Dr. Clifford noted that NCER is asking the Subcommittee if it is spending the GRO funding in a way that effectively attracts students to pursue environmental careers. The Subcommittee agrees that it is appropriate for the GRO Fellowships Program to target the undergraduate student community. There also appears to be agreement that NCER should consider the consortia approach for the Program. Dr. Clifford reminded the Subcommittee members that NCER previously rejected this recommendation. He wanted to allow NCER adequately flexibility to adapt a new model for the Program and not be forced to use the traditional consortia model. He emphasized that it is difficult for faculty to mentor students unless they are involved in research. Dr. Keller-McNulty said she disagreed with the last statement; there are other kinds of programs and activities, such as clubs, that faculty encourage students to join, which would allow

faculty to mentor students. Engineers Without Borders, for example, does not involve research. She also thought EPA could reach out to younger students (high school and middle school). The proposals submitted in response to a consortia RFA could be very creative. Dr. Clifford agreed that the proposals could contain some innovative ideas; NCER just needs to write a good RFA.

Dr. Philbert said that the Subcommittee members appear to agree on the key points in this response. He asked Dr. Clifford if he needed any additional input to revise the draft and Dr. Clifford replied that he did not.

Response to Charge Question #1

Dr. Philbert asked Mr. Rejeski to summarize the response to Charge Question #1.

Mr. Rejeski stated that the Subcommittee previously recommended that NCER seek input from external review panels to identify emerging areas of research. NCER senior management has proposed that the BOSC Executive Committee serve as one of the external review panels to identify emerging research areas. In this charge question, NCER asked the Subcommittee to provide insight on this proposal and a potential methodology for prioritizing emerging research areas and incorporating the highest priority areas into the Center's existing research portfolio.

The Subcommittee's previous report provided advice on processes for setting priorities. Although the reason was not clear, NCER has not followed this previous advice. Therefore, the Subcommittee revisited the issue of external advice and the research prioritization process.

Although the Subcommittee supports the idea of using the BOSC Executive Committee as one method to identify emerging research areas, the Subcommittee members believe that NCER needs to dramatically increase the level of stakeholder input into the research process. NCER needs to: (1) develop and continually improve methods for prioritizing existing research, (2) identify emerging areas that might be missing from the existing research, and (3) experiment with methods to tap stakeholder knowledge in an innovative manner to both solve existing problems and identify new issues. Mr. Rejeski stated that NCER needs to fund research that will help the Center do better research (e.g., value of information theory). This will require a monetary commitment that is both visible and measurable.

Mr. Rejeski recently participated in a synthetic biology "sandpit," which included some of the best and brightest scientists from the United Kingdom. The focus was grand challenges and, at the conclusion of the sandpit, a small group of participants was asked to submit proposals for funding. He noted that EPA staff members set priorities all the time; the key is whether these staff members are in tune with outside priorities and willing to employ new approaches for discovery.

Dr. Finkel commented that the Subcommittee's 2007 report recommended that NCER do research on how to do research. The Center has not taken that advice. He warned that it would be a mistake for NCER to put all of its effort in one model. The majority of NCER's portfolio should be directed at research with the potential to avoid costly mistakes and decisions. This Subcommittee could reiterate the same advice that was offered in 2007.

Dr. Hansen said he was confused by that advice and he did not get the message that NCER should do research on how to do research. NCER may not have responded to the advice because it was not understood. He suggested changing the wording to communicate the advice in language without jargon so that the Center staff understands the recommendation. Dr. Finkel was not sure what wording Dr. Hansen was referring to because this recommendation was not included in the draft response prepared by Mr. Rejeski; he was suggesting that it be added. Dr. Hansen replied that he thought terms such as sandpit and value of information should be defined with a sentence or two in the report rather than just a reference. He thought that it may be too much to expect NCER staff members to look up the reference.

Dr. Philbert disagreed, stating that it is reasonable to expect them to read the references; however, he agreed that the report could provide some detail on the context of the terms.

Mr. Rejeski stated that it is possible that NCER staff members did not understand the recommendation; however, it also may be possible that there was internal resistance to such a prioritization approach. He thought it would be interesting to learn from NCER why the Center rejected this recommendation.

Dr. Hansen pointed out that risk analysis enjoyed success at EPA because it was driven from the top of the organization. Our Subcommittee's recommendations are bottom up and come from outside the Agency; therefore, there may be cultural forces working against this recommendation. How can the Subcommittee overcome that? Mr. Rejeski said that one idea he had was to designate a Chief Innovation Officer in each laboratory/center who would be responsible for seeking ways to make EPA more effective and figuring out how to disinvest in certain research. Dr. Finkel agreed that it has been difficult for the Agency to terminate programs. Because NCER asked about this once again, he thought the report should address it. Either NCER or the program offices should determine why their priorities are important.

Dr. Keller-McNulty asked whether the Subcommittee was making a specific recommendation about the percentage of NCER's research portfolio that should be devoted to this issue. Was there a percentage in the 2007 report? Mr. Rejeski replied that he inserted the 25 percent language; that was not included in the 2007 report. Dr. Philbert asked if the Subcommittee has historically made recommendations on what percentage of the portfolio should be spent on a particular issue. Dr. Hansen thought it might be better to use more qualitative terms and Dr. Philbert agreed. He then asked the Subcommittee members if this research focus should be ongoing or periodic. Mr. Rejeski responded that it should be ongoing. The Center must make a 4-5 year commitment to get the data needed for an evaluation. He stated that even if the report does not specify how much money or what percentage of the budget should be spent on this research, the report should make a strong case for allocating some money to it.

Dr. Finkel thought that his point could be incorporated into the current report by pulling some language from the 2007 report and clarifying it. Dr. Philbert agreed to work with Dr. Finkel on incorporating this point into the current response.

Dr. Clifford asked about NCER's suggestion of using the BOSC Executive Committee to identify emerging areas. Can the Subcommittee agree to this? Dr. Philbert responded that it is a reasonable approach but it will be up to the Executive Committee to decide if and how to do it. He noted that the charge question is vague and does not lend itself to a crisp answer. Mr. Rejeski said that he did not recall anyone disagreeing with that suggestion at the February meeting. Dr. Clifford agreed, but thought the Subcommittee's response should go further by suggesting other options. He will make sure that this is reflected in his section of the response. He wanted the Subcommittee to agree on a list of bullets that capture the key recommendations for the response to Charge Question #1. What are we suggesting beyond using the Executive Committee to identify emerging issues and looking at the sandpit model?

Dr. Keller-McNulty asked how it is possible to get top-notch people to commit 5 days to participate in a sandpit. Mr. Rejeski replied that the promise of funding is the attraction. Dr. Keller-McNulty asked if all the attendees receive funding and Mr. Rejeski replied that only a small group receives funding. She then asked if there was a competitive process to determine who could attend the sandpit. Mr. Rejeski answered that those who wanted to attend had to convince the organizers that they have something important to offer. These sandpits bring together a very talented group of multidisciplinary experts. Dr. Clifford agreed to expand on the sandpit concept. He likened the sandpits to Gordon conferences. Mr. Rejeski replied that they are similar but Gordon conferences are more structured and include presentations. Dr. Clifford suggested including both sandpits and Gordon conferences or even some combination of the two. Mr. Rejeski said that these innovative processes would help the Agency move away from traditional approaches toward new approaches of discovery. Dr. Finkel pointed out that there

are two issues—establishing research priorities and identifying emerging issues. Mr. Rejeski commented that there are feedback loops between the two.

Mr. Rejeski said he would like to get some input from Dr. Finkel to revise his response. Mr. Rejeski mentioned that he did not have access to the 2007 report. Dr. Philbert stated that the previous report is on the BOSC Web Site. Dr. Finkel will work with Dr. Philbert to glean some language from the 2007 report for inclusion in the current report and he will send it to Mr. Rejeski.

Discussion of Draft Letter to the Executive Committee

At the February face-to-face meeting, it was decided that Dr. Keller-McNulty would take the lead for drafting a letter from the Subcommittee to the Executive Committee articulating its opinion about providing external advice on research priorities and issues that go beyond the current charge. Dr. Philbert explained that the letter would have to be submitted to the Executive Committee. The Executive Committee then would decide whether or not to submit the letter to the Assistant Administrator for ORD.

Dr. Keller-McNulty referred to the list of bullets at the top of the letter that summarize the Subcommittee's points. These points include:

- ♦ Need to engage in a broader discussion over strategic directions and the role of R&D and education, short- and long-term.
- ♦ Need to think creatively on how to help ORD prioritize current and future activities.
- ♦ Need to engage a broad set of external stakeholders—non-governmental organizations, professional societies, and industry.
- ♦ Need to focus attention on communicating the R&D needs of EPA ORD to the broader community—building advocacy.
- ♦ There are politics and policy implications out of the control of EPA programs and leadership.
- ❖ If BOSC believes EPA/ORD should be among the R&D agencies that should aspire to a doubling of budget, then action needs to be taken, the case for growth needs to be made, and advocacy needs to be generated.
- ♦ Investments in building the pipeline of future environmental scientists and engineers.

Dr. Keller-McNulty mentioned that the last paragraph of the letter encourages the BOSC to look beyond the Agency's limited and declining budget and focus on communicated the R&D message of EPA/ORD to the nation. This last paragraph also urged the Executive Committee to help develop external advocacy for the strategic directions of EPA/ORD if the members agree that ORD should aspire to a doubling of its budget to meet the nation's grand environmental challenges.

Dr. Philbert asked if there were any comments on the draft letter. Dr. Keller-McNulty thought it would be beneficial to the Agency to talk to various associations about elevating the profile of NCER. She asked that Subcommittee members submit comments on the draft letter by April 24. Dr. Hansen said he thought the letter captured the points made at the February meeting. Dr. Keller-McNulty mentioned that the first

paragraph may need to be modified because it refers to meeting earlier in the week to conduct the NCER review. Given that there were no objections, Dr. Philbert agreed to forward the letter (with minor editorial changes) to the Chair of the Executive Committee. He thanked Dr. Keller-McNulty for drafting the letter.

In closing, Dr. Philbert stated that he will combine the revised draft responses from Dr. Clifford and Mr. Rejeski into one document for final review. The next Executive Committee meeting is scheduled for June 4-5, 2009. He asked that the revised responses be submitted to him by close of business on April 24. Dr. Finkel said that he may need more time. Dr. Philbert indicated that he would like to finalize the response by May 8.

Dr. Philbert asked if there was any additional business. Ms. Peterson reminded the Subcommittee members to complete and submit their homework sheets as soon as possible. Dr. Philbert then thanked everyone for their participation and adjourned the call at 11:50 a.m.

Action Items

- ♦ Subcommittee members will complete and submit their homework sheets to Ms. Peterson as soon as possible. Ms. Peterson will track the hours for the conference call.
- ❖ Dr. Finkel will work with Dr. Philbert to identify language from the 2007 Subcommittee report that captures the previous recommendation that NCER's portfolio should focus on research that has the potential to avoid costly mistakes and decisions. Dr. Finkel will provide this insert to Mr. Rejeski for incorporation into the response to Charge Question #1.
- ♦ Subcommittee members should submit comments on the draft letter to the BOSC Executive Committee to Dr. Keller-McNulty by April 24.
- ♦ Dr. Keller-McNulty will revise the draft letter and submit it to Dr. Philbert.
- ❖ Dr. Philbert will submit the revised letter to the Chair of the Executive Committee prior to the upcoming June meeting.
- ❖ Dr. Clifford will revise the response to Charge Question #2 based on the comments of the Subcommittee members and he will submit the revised draft to Dr. Philbert by close of business on April 24.
- ♦ Mr. Rejeski will revise the response to Charge Question #1 based on the comments of the Subcommittee members and he will submit the revised draft to Dr. Philbert by close of business on April 24.
- ♦ Dr. Philbert will combine the responses to the two charge questions into a single letter report and distribute it to the Subcommittee members for review.
- ♦ Subcommittee members should submit any comments on the combined response to Dr. Philbert so that the report can be completed by May 8.

PARTICIPANTS LIST

Martin Philbert, Ph.D., Chair

Professor

Department of Environmental Health

Sciences

University of Michigan 1420 Washington Heights

Ann Arbor, MI 48109-2029 Telephone: (734) 763-4523

Fax: (734) 763-7105

E-mail: philbert@umich.edu

David B. Baker, Ph.D. (not present)

Director

National Center for Water Quality

Research

Heidelberg College

310 E Market Street

Tiffin, OH 44883

Telephone: (419) 448-2941

Fax: (419) 448-2345

E-mail: dbaker@heidelberg.edu

Dennis A. Clifford, Ph.D.

Director

Department of Civil and Environmental

Engineering

Cullen College of Engineering

University of Houston

Engineering Building 1

Houston, TX 77204-4003

Telephone: (713) 743-4266

Fax: (713) 743-4260

E-mail: DACliffo@central.uh.edu

Adam Finkel, Ph.D.

Professor

Woodrow Wilson School of Public

and International Affairs

Princeton University

402 Robertson Hall

Princeton, NJ 08544

Telephone: (609) 258-4828 (M/W/F)

(732) 235-9754 (T/R) Fax: (609) 258-6082

E-mail: afinkel@princeton.edu

D. Alan Hansen, Ph.D.

Manager

Tropospheric Studies

Electric Power Research Institute

P.O. Box 10412

Palo Alto, CA 94303

Telephone: (650) 855-2738

Fax: (650) 855-2377

E-mail: ahansen@epri.com

Sallie Keller-McNulty, Ph.D.

Dean

George R. Brown School of Engineering

Rice University

P.O. Box

MS-364

Houston, TX 77251-1892

Telephone: (713) 348-4009

Fax: (713) 348-5300

E-mail: sallie@rice.edu

David Rejeski, M.E.D., M.P.H.

Director

Foresight and Governance Project

Woodrow Wilson International

Center for Scholars

1300 Pennsylvania Avenue, NW

Washington, DC 20004

Telephone: (202) 691-4255

Fax: (202) 691-4001

E-mail: david.rejeski@wilsoncenter.org

Seth Tuler, Ph.D. (not present)

Researcher

Social and Environmental Research Institute, Inc.

278 Main Street, Room 404

Greenfield, MA 01301

Telephone: (413) 773-9955

E-mail: sptuler@seri-us.org

Subcommittee Designated Federal Officer

Susan Peterson

U.S. Environmental Protection Agency

Office of Science Policy

Ariel Rios Building (8104R)

1200 Pennsylvania Avenue, NW

Washington, DC 20460

Telephone: (202) 564-1077

E-mail: peterson.susan@epa.gov

EPA Attendees

Alva Daniels

U.S. Environmental Protection Agency Office of Research and Development National Center for Environmental Research (8701F) Ariel Rios Building 1200 Pennsylvania Avenue, NW Washington, DC 20460 Telephone: (202) 343-9895 E-mail: daniels.alva@epa.gov

Brandon Jones, Ph.D.

U.S. Environmental Protection Agency Office of Research and Development National Center for Environmental Research (8726F) Ariel Rios Building 1200 Pennsylvania Avenue, NW Washington, DC 20460 Telephone: (202) 343-9850 E-mail: jones.brandon@epa.gov

Contractor Support

Beverly Campbell

The Scientific Consulting Group, Inc. 656 Quince Orchard Road, Suite 210 Gaithersburg, MD 20878 Telephone: (301) 670-4990

E-mail: bcampbell@scgcorp.com



NCER STANDING SUBCOMMITTEE

AGENDA April 16, 2009 10:00 pm – 12:00 noon Eastern Time

Participation by Teleconference Only 866-299-3188 code: 2025641077#

10:00 - 10:10 am	Welcome - Roll Call - Purpose of Teleconference Call	Dr. Martin Philbert, Subcommittee Chair
10:10 - 10:15 am	Administrative Procedures	Susan Peterson NCER Standing Subcommittee DFO
10:15 – 10:25 am	Public Comment	
10:25 - 12:00 noon	Subcommittee Discussion -Summary of Draft Report Progress - Draft Report Discussion - Draft Report Next Steps and Schedule	Dr. Martin Philbert, Subcommittee Chair and Subcommittee Members
12:00 noon	Adjourn	